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MONTHLY LETTER OF THE BUREAU OF ENTOMOLOGY
UNITED STATES DEPARTMENT OF AGRICULTURE.

Number 46.

February, 1918.

WHERE DO YOU STAND TODAY?

EITHER YOU ARE FOR THE UNITED STATES -- OR YOU ARE AGAINST IT! THERE CAN BE NO MIDDLE ROAD! TO DO, WHOLE-HEARTEDLY, THE TASK WHICH THE FORTUNES OF WAR AND YOUR COUNTRY HAVE SET BEFORE YOU, IS THE GREATEST SERVICE TO YOUR COUNTRY! HISTORY MAY NOT ALLOT TO YOU A PLACE IN THE HALL OF FAME! THE PLAUDITS OF A GRATEFUL COUNTRY MAY NOT ACCLAIM AND CROWN YOUR EFFORTS! BUT IN THE END YOU MAY REST IN THE REALIZATION - THAT YOU HAVE DONE YOUR WHOLE DUTY - AND AFTER ALL -- WHAT MORE HAS LIFE TO OFFER? WHAT WOULD IT BENEFIT A MAN OR HIS CHILDREN, THEN- IF HE GAIN THE WHOLE WORLD - AND GO DOWN TO HIS GRAVE - A SLACKER?

ADDITIONAL NOTE ON THE EFFECT OF THE COLD WINTER UPON PRINCIPAL CROP INSECTS.

In the January Letter I asked for observations during the coming season as to the effect of the extraordinary winter on the principal insect enemies of the important crops.

Dr Henry Fox calls my attention to the danger of misinterpretation as to cause of lessened numbers of such pests, showing that in his work certain grouse-locusts which past the winter in the adult stage are scarce at Clarks-ville, Tenn., where they were very common last spring. It would be fair, without other knowledge, to attribute their present scarcity to the severe cold of the present winter, but he happens to know that they were just about as scarce last fall as they are now, and thinks that the reason was a long period of very dry weather in the early fall which came at a time when the eggs should have been hatching and the young beginning their development. So it will be well in submitting observations to consider possible explanations other than the extraordinary cold of December and January. (L.O.H.)

VISTOR TO THE BUREAU IN FEBRUARY.

Mr. P. van der Goot, of Buitenzorg, Java, Entomological Assistant at the great sugar experiment station there, was in Washington from the 15th to the 25th of February, looking up matters connected with the injurious insects of tropical crops. Mr. van der Goot is especially well known by his writings, his large contribution to the knowledge of Aphididae of Java and other papers of importance. He speaks English very fluently, and is still a young man with many years of work ahead of him. He is on his return to Java from Holland, and will stop, in crossing this country, at New Orleans, at Tucson, and at Pasadena, and hopes to spend ten days in Hawaii. (L. O. H.)

WAR LIBRARY SERVICE

The response of the people of the United States to the request of the American Library Association for books for the camp libraries has been most generous. Each of the 32 cantonment libraries now has a library building containing from 10000 to 15000 books and accomodating from 175 to 200 readers. These are also at each large camp from 8 to 20 branch stations containing from 500 to 1500 books and several deposit stations. The call still comes for books: half a million

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more are required to meet the actual demands of the men in the 32 large camps and another half million to meet the needs of the military posts, small camps and naval stations; for men on the transports and overseas an almost unlimited supply can be used. TO MEET THESE NEEDS THE AMERICAN LIBRARY ASSOCIATION WAR LIBRARY SERVICE PLANS TO CONDUCT DURING THE WEEK BEGINNING MARCH 18TH A NATION-WIDE, INTENSIVE CAMPAIGN FOR BOOKS FOR OUR SOLDIERS AND SAILORS. The kinds of books desired are novels of adventure, detective stories and standard fiction, up-to-date books on civil, mechanical and electrical engineering, the trades, business, the professions, and agriculture, recent text books on military subjects, the sciences and foreign languages, books of travel, histories, poetry and books on the present war. Pass on to the men in khaki the books you have enjoyed but will not read again- pass on also some of those you like best and would like to keep- the soldiers and sailors will enjoy them too. Books brought to the Bureau Library or to the Library of the Department of Agriculture will be forwarded to those in charge of the work. (Mabel Colcord.)

LIBRARY.

Miss Mabel Colcord, Librarian.

NEW BOOKS.

- Arrow, Gilbert The fauna of British India including Ceylon and Burma. Coleoptera. Lamellicornia Part II (Rutelinae, Desmonycinae and Euchi-
rinae) London May 1917. 387p. illus., 5 pl.
- Conn, H. W. Agricultural bacteriology. Philadelphia, 1918. 357p. illus.
- Foreman, F. W. and Graham-Smith, G. S. Investigations on the prevention of
nuisances arising from flies and putrefaction. Journal of hygiene
v.16, no. 2, p. 109-226, Oct. 31, 1917.
- Lutz, Frank E. Field book of insects. New York and London, 1918. 509p.
101 pl.
- Pantel, J. Amproposito de un Anisolabis alado-contribucion al estudio de los
esclerites toracios en los dermptoros; datos para la interpretac-
ion del acropterismo excepcional. Barcelona, 1917. 160p. 6 pl.
(Memorias de la Real Academia de Ciencias y Artes de Barcelona,
ser. 3, v.14, no. 1, June, 1917.)
- Roubaud, E. Les producteurs de maiases et agents similiares chez l'homme et
les animaux. 250p. illus., 4 col. pl. (Etude sur la faune para-
sitaire de l'Afrique franscaise, fasc. 1.)
- Sinclair, James. Instructions for collecting and preserving valuable Lep-
idoptera. Los Angeles, [1917] 80p. illus.
- Theobald, F. V. Poultry in orchards and their effect on injurious insects.
London, 1917. 2p. Fruit, Flower and Vegetable 'Trades' Journal
Oct. 13, 1917.
- Tillyard, R. J. The biology of dragonflies (Odonata or Paraneuroptera).
Cambridge 1917. 396p. illus., 4 pl.
Bibliography, p. 363-375.

- Van Duzee, E. P. Catalogue of the Hemiptera of America north of Mexico, excepting the Aphididae, Coccidae and Aleurodidae. Berkeley, 1917. 902p. (Univ. of California pub. Tech. Bul. Col. Agr. Exp. Sta. Ent. v.2, p. 1-902, Nov. 30, 1917)
- Ward, H. B. and Whipple, G. C. Fresh water biology. ed. 1 New York, 1918. 1111p. illus.
- Chap. XXVI Water mites, by Robert H. Wolcott, p. 851-875.
- Chap. XXVII Aquatic insects, by James G. Needham, p. 876-946.

BEE CULTURE.

E. F. Phillips, Apiculturist in Charge.

E. F. Phillips attended the meeting of the National Beekeepers' Association at Burlington, Iowa, February 19-20. Mr. David Running, formerly of this Bureau, was elected president.

Geo. S. Demuth left February 20 for a six week trip in California where a series of meetings on disease control will be held in cooperation with E. F. Atwater of the Bureau.

E. F. Atwater who was two weeks in Arizona and the same time in New Mexico has now returned to California.

Ward H. Foster was engaged in the Yakima Valley, Washington during the month of February, and goes to Oregon for March.

C. E. Bartholomew was in Colorado during February.

E. W. Atkins is still in Missouri and goes to Kansas for March.

G. C. Matthews is closing up his work in Minnesota.

P. W. Erbaugh has resigned to enlist in the Marine Corps.

E. L. Sechrist was engaged during February in Ohio in extension work.

R. B. Willson has been appointed and assigned to work in Mississippi.

Mr. Willson is a graduate of Cornell University.

Geo. H. Rae has been given temporary appointment and is in New York on extension work.

G. H. Gale of the Maryland Agricultural College has been appointed Extension Apiculturist and began work February 20.

SOUTHERN FIELD CROP INSECT INVESTIGATIONS.

W. D. Hunter, Entomologist in Charge.

Doctor Hunter spent the entire month of February in Texas directing the eradication work against the pink bollworm.

R. H. Hutchinson has been assigned to the investigation of the body louse and head louse with temporary headquarters at New Orleans, La.

Max Kisliuk, Jr., returned to duty at Clarksville, Tenn., on February 12 after receiving his degree of Master of Arts from the Ohio State University.

A. C. Johnson has been transferred to Dallas, Tex., for a period of three months for preparatory work.

F. S. Chamberlin will assume charge of the tobacco budworm work with headquarters at Quincy, Fla., on March first.

U. C. Gilmore will return to South Boston, Va., about the first of March to continue work against tobacco insects.

NOTES FROM EL CENTRO [CALIFORNIA] FIELD STATION.

Not a trace of *Hippodamia convergens* has been seen in or around Imperial Valley since the advent of midwinter conditions, although the winter has been a very mild one thus far. Search in plant lice infested grain fields, basal volunteer shoots of cotton, along the banks of the Alamo and New Rivers, and at altitudes from 1000 feet to 4000 feet in the Laguna Mountains, west of the Valley, has failed to reveal any indications of hibernating ladybirds.

An inspection of grain fields in scattered parts of the Imperial Valley, made January 31, showed that all fields over a week old were quite generally infested with *Aphis avenae*. The average infestation, as based on counts of 160 stools, was computed at that time to be 69.4 percent. The colonies, which consisted of wingless females, their young, occasional nymphs, and rarely a winged migrant, appeared of rather recent establishment. Although parasites and syrphid larvae were seen, no *Hippodamia* individuals were present.

The cotton aphid (*Aphis gossypii*) is quite commonly seen on *Malva* leaves, to which related plants they have probably migrated upon the recent frosting of the cotton foliage. (E. A. McGregor.)

DECIDUOUS FRUIT INSECT INVESTIGATIONS.

A. L. Quaintance, Entomologist in Charge.

M. A. Yothers, in charge of the Bureau's laboratory at Medford, Ore., where investigations are being carried out of apple insects, was in Washington for a short period and has now returned to Medford, Ore., to resume his field operations.

R. J. Fiske, in charge of the Bureau's laboratory at Roswell, N. Mex., after spending several weeks in Washington, has now returned to Roswell, N. M., to resume his field investigations.

F. L. Simanton, in charge of the Bureau's laboratory at Benton Harbor, Mich., is now in Washington preparing reports and manuscripts on the results of his investigations.

Dr. Frank Thomas, a member of the entomological force of Dr. W. E. Hinds, of the Alabama Polytechnic Institute, has been given a temporary appointment as Special Field Agent in the Bureau, and will be engaged in extension work in deciduous fruit insect control in Alabama, with headquarters at Auburn.

FEDERAL HORTICULTURAL BOARD.

C. L. Marlatt, Chairman.

The pink bollworm situation is substantially as reported in the Monthly Letter of January. The work of eradication is being pushed earnestly under the personal field direction of Doctor Hunter.

Supplementing the establishing of a quarantine covering the infested districts in Texas reported in the last letter, the establishment of cotton-free areas covering these districts was legally accomplished by the proclamation issued by the Governor of that State under date of February 25. Within these areas the growing of cotton is designated a public menace and is pro-

hibited "for a term of three years or so long as such condition of menace to the cotton industry shall be deemed to exist." Most of the planters included in these areas have come to appreciate fully the need and it is believed there will be very little actual opposition to this action. In spite of the enormous area now involved in the infestation there is still a reasonable chance of exterminating the insect. Such extermination, however, will require the loyal cooperation of the State authorities and particularly of all the planters within the quarantined territory.

A border cotton-free zone has also been established by a proclamation of the Governor under date of February 19, to include the counties of Kinney, Maverick, and Valverde as a result of the determination of infestation of cotton lands in Mexico within 25 miles of the Texas-Mexican border opposite Eagle Pass and Del Rio. The planting of cotton in the counties designated is prohibited "for a period of three years or so long as such condition of menace to the cotton industry shall be deemed to exist."

The establishment of these cotton-free areas and zone complete the legal action which is dependent on the Texas law and makes it possible to go forward with the full program of control which has been provided for now, both by Federal and State legislation.

The Board is considering an improvement in the border disinfection system, namely, the disinfection of cars and contents in special fumigation sheds or houses. Mr. Beattie is now on the border making preliminary arrangements for such disinfection. Fumigation of this sort seems to be necessitated by the risk which always obtains of moths adhering to the exterior of cars and thus escaping the interior fumigation hitherto given or even escaping the supplemental oil sprays which will be given all cars entering the United States beginning March 1.

The station established in the Laguna is now getting in working order and has secured very satisfactory quarters.

A formal notice of hearing on account of the banana root borer (*Cosmopolites sordidus* Germar) has been issued for March 4, 1918.

FOREST ENTOMOLOGY.

A. D. Hopkins, Forest Entomologist.

Frank B. Herbert, Scientific Assistant at the Los Gatos [California] Laboratory, spent the week beginning January 28, investigating shade tree pests in the region north of San Francisco Bay.

The most important shade-tree pest of this region was found to be the cypress bark scale (*Sphaerococcus cupressi* Ehrhorn) which was found to be widely distributed upon the Monterey cypress in this region and to be especially abundant at Martinez, Benicia, Santa Rosa, and San Rafael, where it was doing considerable damage. At the Benicia Cemetery every Monterey cypress examined was infested and fully 20 per cent were dead with many others dying. Many Italian cypresses planted in their midst were found to be immune.

The only infestation by the cypress barkbeetle (*Phloeosinus cupressi* Hopk.) found was at Martinez where they had killed three trees in a row of 12, all of which were previously heavily infested with the scale.

The European elm scale (*Gossyparia spuria* [Modeer]) was found abundant at San Rafael.

STORED PRODUCT INSECT INVESTIGATIONS

E. A. Back, Entomologist in Charge.

R. L. Clute, a graduate of the Michigan Agricultural University has been appointed Special Field Agent with headquarters at Gainesville, Fla.

S. E. McClendon who has recently been County Agent at Hawkinsville, Ga., has been appointed Special Field Agent with headquarters at Athens, Ga.

TROPICAL AND SUBTROPICAL FRUIT INSECT INVESTIGATIONS

C. L. Marlatt, Entomologist in Charge.

R. S. Woglum who has been in Washington working on his reports has returned to California. En route he will stop for a day or two in New Orleans to consult with Ernest R. Barber on the subject of the control of the Argentine ant.

Rollin LaFollette who was announced in the last Letter as having been commissioned to assist Mr. Woglum in the extension work in relation to the citrus insects in California has on account of more favorable opportunities declined this commission.

TRUCK CROP INSECT INVESTIGATIONS

F. H. Chittenden, Entomologist in Charge.

B. L. Boyden, Scientific Assistant, formerly with this branch of the Bureau, recently resigned, has been reappointed for extension work in Ventura County, Cal., with headquarters at Oxnard.

K. L. Cockerham, Special Field Agent, Extension Service, has recently reported the occurrence of the sweet-potato weevil in Mobile County, Ala. The nearest point in Mississippi is Pascagoula, in Jackson County. It seems probable this entire region is more thickly infested than formally believed.

Felix Dabadie, a resident of Louisiana, has been appointed Special Field Agent, Extension Service, in that State.

Miss M. A. Connell, of California, has been appointed Scientific Assistant and assigned to duty in Washington.

L. B. Coddington, of Mt. Vernon, N. Y., has been secured for the Extension Service duties in the three States, Massachusetts, Connecticut, and Rhode Island.

EXTENSION ENTOMOLOGY.

J. A. Hyslop, Entomologist in Extension work.

During the months of January and February the following changes in personnel of the Extension Division have taken place:

Forest N. Anderson, Coffeyville, Kans., has been appointed to carry on extension work in the control of truck insects in Texas.

E. Phillip Barrios, who has been carrying on very successful demonstration work in the control of truck insects in Louisiana has resigned to take up county agent work in the same region.

R. L. Clute has been appointed to demonstrate the control of stored product insects in Florida. This work will concern itself principally with the control of corn weevils.

S. E. McClendon, county agent, located at Hawkinsville, Ga., has been appointed to demonstrate the control of stored product insects in Georgia.

Clayton J. Foster, Houston, Tex., has been appointed to carry on extension work in the control of deciduous fruit insects in Texas.

Wm. T. Ham has been appointed to carry on truck crop demonstrations in Washington and Oregon.

Robert Larrimore, Special Field Agent, has been transferred from the extension service to the research service in truck investigations and has been granted furlough in order that he may enter a military training camp.

F. B. Milliken has been transferred from the research rolls of stored product insect investigations to the extension service to carry on work in the lower Mississippi Valley.

D. C. Parman, Uvalde, Tex., has been transferred from research work on animal insect control to the extension work along the same lines.

Roswell C. Pickett who has been carrying on extension work in Texas in the control of truck insects has resigned.

Frank J. Rimoldi of Cornell University has been appointed to carry on extension work in the control of deciduous fruit insects in Massachusetts, Rhode Island and Connecticut.

David Running who has been carrying on Apiculture extension work in New York State has resigned.

Chas. F. Stiles, who has been carrying on cereal and forage extension work in Oklahoma has been transferred to Apiculture extension work to cover the same region.

LeRoy A. Shaw has been appointed to carry on extension work in the control of cereal and forage insects in Montana.

Dr. Frank Thomas, Assistant Entomologist of Alabama, has been appointed to carry on extension work in the control of deciduous fruit insects in that state.

J. H. Wagner who has been carrying on Apiculture extension work in the West has resigned.

Roscoe Wells has been appointed to carry on extension work in the control of insects affecting domestic animals.

R. B. Wilson has been appointed in the extension service in connection with Apiculture work.

W. W. Yothers, Entomological Assistant in Tropical and Subtropical fruit insect investigations has been temporarily transferred to the extension work along the same lines.

H. P. Parks who has been carrying on control work in cereal and forage insects in Texas has resigned to enter the State extension service.

CEREAL AND FORAGE INSECT INVESTIGATIONS.
W. R. Walton, Entomologist in Charge.

H. B. Parks, recently employed as a Special Field Agent in entomological extension work of the state of Texas, has resigned from the service and accepted a position as State Extension Entomologist for Texas. His successor has not yet been designated.

W. O. Hollister, a graduate of the Connecticut Agricultural College of the class of 1907, has been appointed Scientific Assistant, pending certification, and will report for duty during the month of March at the West Lafayette, Indiana, field station.

F. R. Cole, formerly attached to the branch of Truck Crop Investigations, has been transferred to this branch, effective March 1, and will be stationed at the Forest Grove, Oregon, field station, under the direction of Mr. C. W. Creel.

CONTRIBUTIONS ARE SOLICITED.

Funds are needed for knitting, surgical dressings, garment making, housing, entertainment, books, scrap books for hospitals, and war orphans. CONTRIBUTIONS ARE DESIRED FROM ALL EMPLOYEES OF THE BUREAU, BOTH IN WASHINGTON AND IN THE FIELD. ALSO FROM THEIR FAMILIES AND FROM ANYONE INTERESTED IN THE WORK.

Send your contributions to Mrs. H. S. Bishop, Bureau of Entomology, and specify, if you have any preference, to what purpose you desire the contribution to be put. NO AMOUNT IS TOO SMALL!

WANTED:
PHENOLOGICAL RECORDS.

In connection with Dr. Hopkins' studies on the relation of the Bioclimatic law to research and practice in Entomology, he will greatly appreciate records of dates on which the male catkins are falling from the Carolina poplar and Lombardy poplar from the largest possible number of localities in the United States.